Rioja to Rutland - Calculation Assumptions

Number of Bottles in a Container

12 Bottles = 1 Case
56 Cases = 1 Pallet
10 Pallet = 1 TEU (20'')

Specific Routes

				Per TEU 1 x 20'' (Kg Co2e)			Per Pallet (Kg Co2e)	Per Case (Kg Co2e)	Per Bottle (Kg CO2e)
Truck	Mode	Distance (Km)	WTT	TTW	WTW	WTW	WTW	WTW
1. Logroño to Oakham	Truck	1591.85	399.97	1643.19	2043.15	204.32	3.65	0.30

Notes: Assumes 40-44t articulated lorry with diesel fuel and use of train across the channel.

				Per TEU 1 x 20'' (Kg Co2e)			Per Pallet (Kg Co2e)	Per Case (Kg Co2e)	Per Bottle (Kg CO2e)
Train	Mode	Distance (Km)	WTT	TTW	WTW	WTW	WTW	WTW
1. Logroño to Vittoria-Gasteiz	Truck	1632.86	26.64	89.64	116.27	11.63	0.21	0.02
2. Vittoria-Gasteiz to Calais	Train		94.63	313.46	408.09	40.81	0.73	0.06
3. Calais to Oakham	Truck		81.00	310.63	391.63	39.16	0.70	0.06
Total		**1632.86**	**202.27**	**713.72**	**915.99**	**91.60**	**1.64**	**0.14**

Notes: Assumes 40-44t articulated lorry with diesel fuel on truck legs and use of train across the channel. Train leg (2) assumes diesel fuel.

				Per TEU 1 x 20'' (Kg Co2e)			Per Pallet (Kg Co2e)	Per Case (Kg Co2e)	Per Bottle (Kg CO2e)
Container Ship	Mode	Distance (Km)	WTT	TTW	WTW	WTW	WTW	WTW
1. Logroño to ESBIO Port	Truck	1596.94	38.32	149.49	187.81	18.78	0.34	0.03
2. ESBIO Port to GBTIL Port	Container ship		30.27	191.89	222.15	22.22	0.40	0.03
3. GBTIL Port to Oakham	Truck		51.77	195.64	247.41	24.74	0.44	0.04
Total		**1596.94**	**120.36**	**537.01**	**657.37**	**65.74**	**1.17**	**0.10**

Notes: Assumes 40-44t articulated lorry with diesel fuel on truck legs. Container Ship emissions intensity for a Intra North Europe route used.

				Per TEU 1 x 20'' (Kg Co2e)			Per Pallet (Kg Co2e)	Per Case (Kg Co2e)	Per Bottle (Kg CO2e)
RoRo Ferry (0-5k dwt)	Mode	Distance (Km)	WTT	TTW	WTW	WTW	WTW	WTW
1. Logroño to ESBIO Port	Truck	1596.94	38.32	149.49	187.81	18.78	0.34	0.03
2. ESBIO Port to GBTIL Port	RoRo Ferry		974.01	6178.09	7152.10	715.21	12.77	1.06
3. GBTIL Port to Oakham	Truck		51.77	195.64	247.41	24.74	0.44	0.04
Total		**1596.94**	**1064.10**	**6523.22**	**7587.32**	**758.73**	**13.55**	**1.13**

Notes: Assumes 40-44t articulated lorry with diesel fuel on truck legs. Assumes 0-5k dwt RoRo for sea leg.

RoRo Ferry (5-10k dwt)			Per TEU 1 x 20" (Kg Co2e)			Per Pallet (Kg Co2e)	Per Case (Kg Co2e)	Per Bottle (Kg CO2e)
	Mode	Distance (Km)	WTT	TTW	WTW	WTW	WTW	WTW
1. Logroño to ESBIO Port	Truck	1596.94	38.32	149.49	187.81	18.78	0.34	0.03
2. ESBIO Port to GBTIL Port	RoRo Ferry		214.49	1350.25	1564.74	156.47	2.79	0.23
3. GBTIL Port to Oakham	Truck		51.77	195.64	247.41	24.74	0.44	0.04
Total		**1596.94**	**304.59**	**1695.38**	**1999.96**	**200.00**	**3.57**	**0.30**

Notes: Assumes 40-44t articulated lorry with diesel fuel on truck legs. Assumes 5-10k dwt RoRo for sea leg.

Plane			Per TEU 1 x 20" (Kg Co2e)			Per Pallet (Kg Co2e)	Per Case (Kg Co2e)	Per Bottle (Kg CO2e)
	Mode	Distance (Km)	WTT	TTW	WTW	WTW	WTW	WTW
1. Logroño to MAD Airport	Truck	1749.35	96.58	353.96	450.54	45.05	0.80	0.07
2. MAD Airport to LHR Airport	Plane		3053.40	13879.09	16932.49	1693.25	30.24	2.52
3. LHR Airport to Oakham	Truck		51.28	195.16	246.44	24.64	0.44	0.04
Total		**1749.35**	**3201.26**	**14428.21**	**17629.47**	**1762.95**	**31.48**	**2.62**

Notes: Assumes 40-44t articulated lorry with diesel fuel on truck legs. Plane emissions intensity for "unknown" plane type used - i.e. could be belly freight or cargo plane.

All calculations assume 10 Tonnes per TEU and have been calculated based on 1 TEU being transported.

The emissions are for illustrative purposes only as a way of example to show potential differences in mode and routes. Other routes are available which may shorten or lengthen the journey and change the carbon emissions. While these have been calculated using the GLEC framework methodology, only default emission intensities are being used. As a result, these should not be used for calculations used to conform to regulation reporting as a change in assumptions such as dwt, load factor, fuel type etc. is highly likely to impact the carbon emissions calculations.

Acronyms

WTT = Well to Tank

TTW = Tank to Wheel

WTW = Well to Wheel